The meeting of the Standing, Reef Fish, Mackerel, and Socioeconomic Scientific and Statistical Committees (SSC) was convened at 2:00 p.m. on May 9, 2019. The agenda was approved after adding two items under Other Business. The minutes from the March 13-14, 2019 SSC webinar were approved as written.

Dr. Kai Lorenzen agreed to serve as the SSC representative at the June 3-6, 2019 Gulf of Mexico (Gulf) Fishery Management Council (Council) meeting in Destin, Florida.

**Review of Carryover Simulations including Overages**

Drs. John Walter and Nathan Vaughan of the Southeast Fisheries Science Center (SEFSC) reviewed the expanded carryover simulations developed for the SSC. Generally, so long as unharvested quota is carried over and overharvested fish are paid back pound for pound in the following fishing year, a species’ rebuilding plan will not be negatively affected long-term. However, if carryover is permitted for a species which also experiences quota overages, and those overages are not paid back, the spawning stock biomass (SSB) will decline, regardless of whether the stock is in a rebuilding plan. Primary caveats to the analyses were:

- Analyses assume constant recruitment, regulatory environment, discard mortality, and other influential model parameters from the species-specific stock assessments.
- Unharvested quota to be carried over, and overharvested quota to be paid back, should apply only to the smallest divisible managed portion of the fishery that was responsible for the underage of overage.
- Carryovers and paybacks were applied to the fishing year after they occurred; delayed application of carryovers or paybacks was not recommended.

The Committee noted that rebuilding plans are ultimately based on the overfishing limit (OFL), as opposed to the acceptable biological catch (ABC), upon which the SEFSC analyses were based. Even a miniscule difference in ABC (used to manage most Gulf stocks) and OFL will result in a small underharvest which can allow for more rapid stock rebuilding than projected from the OFL level. The Committee thought that a comparison of rebuilding schedules for a species like red snapper using both ABC and OFL as the benchmark harvest rate would be informative.

Council staff clarified that, per the Generic Amendment Carryover Provisions and Framework Modifications, the difference between the OFL and ABC cannot be reduced by more than 50% in a year when a carryover is applied. This measure, combined with the narrow buffers for some species between the OFL and ABC, means that the total amount of quota that could be carried over in a given year may be paltry compared to the total ABC.

Committee members expressed concern over the precision of landings, and lags in receipt of quota monitoring data. Landings data collection for some fleets, such as commercial individual fishing quota fleets, are considered near-censuses of the fish harvested by that fleet; whereas, other fleets
like the private angling component of the recreational sector may have much less precise and timely landings data. Council staff detailed the efforts by the Gulf states to improve landings and effort data collection and monitoring, along with electronic logbooks for the for-hire component of the recreational sector, noting that these improvements should generally result in more precise and timely landings and effort estimates in the future.

The SSC noted that multi-year accumulation of overages or underages and year-long lags in data collection and implementation would make a payback system operate poorly. Council staff noted that the proposed amendment guards against that eventuality by requiring short term responses, i.e. within the next fishing year. The effectiveness of a payback system is contingent upon the ability to make annual (short term) adjustments.

SEFSC staff cautioned the Committee that not all changes in biomass levels may be due to fishing effort (or a lack thereof). Episodic mortality events, such as oil spills or red tide, could cause the relative abundance of a stock to decline despite how the species is managed. Conversely, strong weather events like hurricanes, or economic forces like a recession or high fuel costs, could suppress fishing effort. When considering the application of carryovers and paybacks, these possibilities should be considered. Council staff added that the current amendment dictates that carryover cannot occur unless a fishing season for a species was closed early because the ACL was projected to be met, but in fact was not. This rule would prevent carryover due to insufficient effort or a lower than expected catch rate. Also, in the event a stock may have experienced negative effects from an episodic mortality event, the Council can request an emergency action from the National Marine Fisheries Service to modify the ACL until an interim analysis or other assessment can reveal more about the condition of the stock.

Without opposition, the SSC recommends the simulation analysis done by the SEFSC with respect to quota overages or underages as best available science. All else being equal, results of that analysis indicate if a payback, in the case of a quota overage, or a carryover, in the case of a quota underage, is handled in a one to one fashion in the short term, there is little effect on rebuilding trajectories.

The Committee further considered the relationship inherent to carryovers and paybacks, and considered paybacks essential as a safeguard when applying carryovers for a species. Doing so would serve to prevent overharvest otherwise not accounted for in yield projections.

Without opposition, the SSC recommends the Council consider implementing paybacks for overages for stocks on a rebuilding schedule, in light of the analyses provided by SEFSC regarding overages with no payback provision.

Other Business

Ecosystem Technical Committee

The Council is forming an Ecosystem Technical Committee comprised of scientists, fishermen, and other interested stakeholders. Drs. Dave Chagaris and Robert Leaf volunteered to be members of this new committee.
National SSC Meeting

Dr. Kai Lorenzen has been participating in calls about the 7th National SSC meeting, which will take place in Sitka, Alaska in the late summer of 2020. There are three main themes for the meeting:

1. *How to incorporate ecosystem indicators into the stock assessment process?*
   This session will focus upon understanding ecosystem dynamics and how insights from ecosystem modeling can best inform stock assessments and resulting management decisions.

2. *Management of interacting species in consideration of ecosystem-based fishery management (EBFM).*
   Stock assessment considerations under evolving ecosystem-based fishery management (EBFM) principles must address, among many things, the interaction of multiple species including predator-prey relationships. This session will focus on how best to address these considerations on a regional and national level.

3. *How to assess and manage species exhibiting distributional changes?*
   The Magnuson-Stevens Act requires that stocks are managed throughout their distributional range. The primary focus of this session is to address how stock assessment and management should best accommodate stocks whose geographic distributions change with climate variability and climate change.

The proposal for the scope of work for the 7th National SSC meeting will be presented the week of May 13 to the Council Coordinating Committee in Charleston, SC.

The management of recreational and mixed-use fisheries has been highlighted as a potential topic for the 8th National SSC meeting, to be held in 2022. The Council could consider hosting this meeting.

Fall SSC Meeting

Council staff are attempting to schedule the fall SSC meeting during the week of September 16th.

The meeting adjourned at 4:30 p.m. on May 9, 2019.
Participants *(all via webinar)*

**Standing SSC**  
Joe Powers, *Chair*  
Kai Lorenzen, *Vice Chair*  
Lee Anderson  
Benny Gallaway  
Bob Gill  
Doug Gregory  
Walter Keithly  
Robert Leaf  
Camp Matens  
Ken Roberts  
Steven Scyphers  
James Tolan  
David Chagaris  
Harry Blanchet  
Will Patterson  

**Mackerel SSC**  
Jason Adriance  
John Mareska  
Kari MacLauchlin-Buck  

**Socioeconomic SSC**  
Kari MacLauchlin-Buck  
Jack Isaacs  
Andrew Ropicki  

**Council Staff**  
Ryan Rindone  
Lisa Hollensead  
John Froeschke  
Carrie Simmons  
Karen Hoak  
Jessica Matos  
Bernie Roy  

**Presenters**  
John Walter, NMFS  
Nathan Vaughan, NMFS  

**Council Member**  
Dale Diaz  

**Others**  
Michael Drexler, OC  
Sue Gerhart, NMFS  
Mara Levy, NMFS  
Skyler Sagarese, NMFS  
Sarah Gibbs, NEU  
Sepp Haukebo, EDF  
Ashford Rosenberg, RFSA  
Michael Norberg, FWC  
Martha Guyas, FWC  
Lauren Picariello, TAMU  
Ben Martino  
Costa Kouzounis  
Steven Atran